(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/049837 A1

- (51) International Patent Classification7: C12N 15/31, A61K 39/118, 31/7088, A61P 31/04, C07H 21/00, C07K 14/295, 16/12, C12P 21/02
- (21) International Application Number:

PCT/CA2004/002004

(22) International Filing Date:

22 November 2004 (22.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/481,676

20 November 2003 (20.11.2003)

(71) Applicant (for all designated States except US): AVEN-TIS PASTEUR LIMITED [CA/CA]; 1755 Steeles Avenue West, Toronto, Ontario M2R 3T4 (CA).

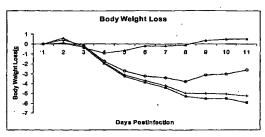
- (72) Inventors; and
 - BRUNHAM, Inventors/Applicants (for US only): Robert [CA/CA]; 655 W 12th Avenue, Vancouver, British Columbia V5Z 4R4 (CA). GALLICHAN, Scott [CA/CA]; 1189 Britannia Road, Campbellville, Ontario LOP 1B0 (CA). MURDIN, Andrew [GB/CA]; 11 Forest Hill Drive, Richmond Hill, Ontario L4B 3C2 (CA). RAUDONIKIENE, Ausra [CA/CA]; 7 Swiss Court, Toronto, Ontario M2M 4E2 (CA).
- (74) Agent: YACOOB, Reza; 1755 Steeles Avenue West, Toronto, Ontario M2R 3T4 (CA).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

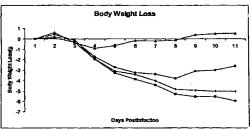
(54) Title: IMMUNIZATION AGAINST CHLAMYDIA INFECTION

Body Weight loss after immunization

Panel A 60kCRMP full-length



Panel B 60kCRMP signal sequence deleted



- **▲** EB
- o- pCACT CRMP60k
- - pCACT CRMPdelta
- + pCAMycHis
- Naive



(57) Abstract: The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of Chlamydia, specifically C. trachomatis. The method employs a vector containing a nucleotide sequence encoding a polypeptide of a strain of Chlamydia operably linked to a promoter to effect expression of the gene product in the host. The polypeptides are derived from the Chalmydia gene 60kCRMP gene including truncated forms of the gene. The invention further provides recombinant 60kCRMP protein useful for protecting against disease caused by infection with Chlamydia.

WO 2005/049837 A1



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.